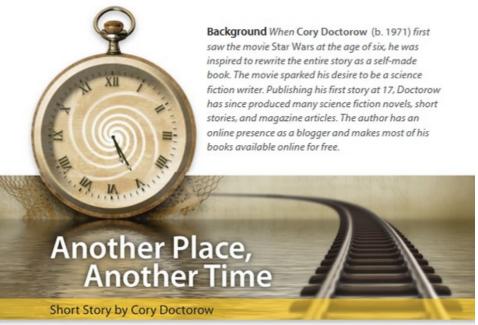
55 24



SETTING A PURPOSE Science-based ideas are important in this story. As you read, think of the significance of these ideas to the characters—especially to Gilbert.

Gilbert hated time. What a tyrant it was! The hours that crawled by when his father was at sea, the seconds that whipped past when he was playing a brilliant game in the garden with the Limburgher children. The eternity it took for summer to arrive at the beach at the bottom of the cliffs, the flashing instant before the winter stole over them again and Father took to the sea once more.

"You can't hate time," Emmy said. The oldest of the three Limburghers and the only girl, she was used to talking younger boys out of their foolishness. "It's just time."

Gilbert stopped pacing the tree house floor and pointed a finger at her. "That's where you're wrong!" He thumped the book he'd taken out of his father's bookcase, a book fetched home from London, heavy and well made and swollen with the damp air of the sea-crossing home to America. He hadn't read the book, but his tutor, sour Señor Uriarte, had explained it to him the day before while he was penned up inside, watching summer whiz past the study's windows. "Time isn't just time! Time is also space! It's also a dimension." Gilbert thumped the book again for emphasis, then opened it to the page he'd marked with a wide blade of sawgrass.

"See this? This is a point. That's one dimension. It doesn't have length or depth. It's just a dot. When you add another dimension, you get lines." He pointed at the next diagram with a chewed and dirty fingernail. "You can go back and you can go forward, you can move around on the surface, as though the world were a page. But you can't go up and down, not until you add another dimension." He pointed to the diagram of the cube, stabbing at it so hard, his finger dented the page. "That's three dimensions, up and down, side to side, and in and out."

Emmy rolled her eyes with the **eloquence** of a thirteenyear-old girl whose tutor had already explained all this to her. Gilbert smiled. Em would always be a year older than he was, but that didn't mean he would always be dumber than she was.

"And Mr. Einstein, who is the smartest man in the whole history of the world, he has proved—absolutely proved—that time is just another dimension, just like space. Time is what happens when you can go up and down, side to side, in and out, and before and after."

Em opened her mouth and closed it. Her twin brothers, Erwin and Neils, snickered at the sight of their sister struck dumb. She glared at them, then at Gilbert. "That's stupid," she said.

"You're calling Einstein stupid?"

"Of course not. But you must not understand him properly. Space is space. Time is time. Everyone knows that."

Gilbert pretended he hadn't heard her. "But here's the part no one knows: why can we move through space in any odirection—"

"You can't go up!" Em said, quickly.

"You got up into my tree house," he said, putting a small emphasis on my. "And you could go back down, too."

August 1

Emmy, who was a better fighter than any of them, put her fists on her hips and mimed *Make me*. He pretended he didn't see it.

"Why can we move through space in almost any direction, but time only goes in one direction, at one speed? Why can't we go faster? Slower? Backwards?"

"Sideways?" Neils said. He didn't speak often, but when he did, what he said was usually surprising.

"What's sideways in time?" his twin asked.

Neils shrugged. "Sideways is sideways."

"This is dumb," Emmy declared, but Gilbert could see that she was getting into the spirit of the thing—starting to understand how it had made him all so angry.

Outside Gilbert's house the summer roared past like a three-masted schooner before a gale, (1) with all sails bellied out. Inside the study, the hours crawled by. And then, in between, there were the breakfasts and dinners with Gilbert's father, who was home for the summer, whose kind eyes were set into an ever-growing net of wrinkles and bags, who returned from his winter voyages each year a little thinner, a little more frail. "And what did you learn today, my boy?" he said, as he tucked in to the mountain of lentils and beans made by the housekeeper, Mrs. Curie (who was so old that she had actually once served as Father's nanny and changed his diapers, which always made Gilbert giggle when he thought of it). Father was a strict vegetarian and swore by his diet's life-enhancing properties, though that didn't seem to stop him from growing older and older and older.

Gilbert stopped fussing with his lentils, which he didn't like very much. "Geography," he said, looking at his plate. "We're doing the lowlands." He looked out at the sunset, the sun racing for the other side of the planet, dragging them all back toward the winter. "Belgium. Belgium, Belgium, Belgium."

His father laughed and smacked his hands on his thighs.

"Belgium! Poor lad. I've been marooned there once or twice.

Land of bankers and cheese-makers. Like hitting your head,
Belgium, because it feels so good when you stop. What else?"

WHAT IF TIME MOVED IN EVERY DIRECTION AND AT EVERY SPEED?

His father laughed until tears rolled down his cheeks, and Gilbert didn't have the heart to tell him that the phrase had been Neils's, because making his father laugh like that was like Christmas and his birthday and a day at the beach all rolled into one.

And then his father took him down to the ocean, down the rough goat trail cut into the cliff, as surefooted as a goat himself. They watched the sun disappear behind the waves, and then they moved among the tidepools, swirling their hands in the warm, salty water to make the bioluminescent[2] speck-size organisms light up like fireworks. They sat out and watched the moon and the stars, lying on their backs in the sand, Gilbert's head in the crook of his father's arm, and he closed his eyes and let his father tell him stories about the sea and the places he went in the long, lonely winters, while the waves went shhh, shhh, like the whisper of the mother who'd died giving birth to him.

Then they picked their way back up the cliff by moonlight that was so bright, it might have been day, a blue-white noon in shades of gray, and his father tucked him up into bed as if he were three years old, smoothing the covers and kissing him on the forehead with a whiskery kiss.

As he lay along a moment that stretched sleepily out like warm taffy, suspended on the edge of sleep, the thought occurred to him: What if space moved in only one direction, in two dimensions, like time? The year passed. For so long as Gilbert could remember, summer's first messenger had been the postmaster, Mr. Ossinger, who rode his bicycle along the sea road to the house to deliver his father's telegram advising of his expected arrival in port and the preparations to be made for him. Mrs. Curie usually signed for the letter, then knocked on the study door to deliver it into Gilbert's eager hands.

But this year, while the wind and rain howled outside the window, and Señor Uriarte plodded through the formation of igneous rock, [3] Mrs. Curie did not come and deliver the letter, rescuing him from geography. She didn't come to the door, though Señor had finished rocks and moved on to algebra and then to Shakespeare. Finally, the school day ended. Gilbert left Señor stirring through the coals of the study fire, adding logs against the unseasonal winds outside.

Gilbert floated downstairs to the kitchen as though trapped in a dream that compelled him to seek out the housekeeper, even though some premonition told him to hide away in his room for as long as possible.

From behind, she seemed normal, her thin shoulders working as she beat at the batter for the night's cake, cranking the mixer's handle with slow, practiced turns. But when the door clicked shut behind him, she stopped working the beater, though her shoulders kept working, shuddering, rising, falling. She turned her face to him and he let out a cry and took a step back toward the door. It was as though she had been caught by an onrush of time, one that had aged her, turning her from an old woman to an animated corpse. Every wrinkle seemed to have sunk deeper, her fine floss hair hung limp across her forehead, her eyes were red and leaked steady rills of tears.

She took a step toward him, and he wanted to turn and run, but now he was frozen. So he stood, rooted to the spot, while she came and took him up in her frail arms and clutched at him, sobbing dry, raspy sobs. "He's not coming home," she whispered into his ear, the whiskers on her chin tickling at him. "He's not coming home, Gilbert. Oh, oh, oh." He held her and patted her and the time around him seemed to crawl by, slow enough that he could visualize every sweet moment he'd had with his father, time enough to visualize

every storm his father had ever narrated to him. Had all that time and more before Señor Uriarte came downstairs for his tea and found them in the kitchen. He gathered up frozen Gilbert and carried him to his bedroom, removed his shoes, and sat with him for hours until he finally slept.

When morning dawned, the storm had lifted. Gilbert went to his window to see the stupid blue sky with its awful yellow sun and realized that his father was now gone forever and ever, to the end of time.

Emmy and her brothers were queasy of him for the first week of summer, playing with him as though he were made of china or tainted with plague. But by the second week, they were back to something like normal, scampering up the trees and down the cliffs, ranging farther and farther afield on their bicycles.

Most of all, they were playing down at the switchyards, the old rail line that ran out from the disused freight docks a few miles down the beach from their houses. Señor and Mrs. Curie didn't know what to do with him that summer, lacking any direction from Father, and so Gilbert made the most of it, taking the Limburghers out on longer and longer trips, their packs bursting with food and water and useful tools: screwdrivers, crowbars, cans of oil.

Someone probably owned the switchyard, but whoever
that was, he was far away and had shown no interest in it in
Gilbert's lifetime. It had been decades since the freighters
came into this harbor and freight trains had taken their cargos
off into the land on the rusted rails. The rusted padlocks on
the utility sheds crumbled and fell to bits at the lightest touch
from the crowbars; the doors squealed open on their ancient
hinges.

Inside, the cobwebby, musty gloom yielded a million treasures: old time-tables, a telegraph rig, stiff denim coveralls with material as thick as the hall carpet at home, ancient whiskey bottles, a leather-bound journal that went to powder when they touched it, and . . .

A handcar.[4]

"It'll never work," said Emmy. "That thing's older than the dinosaurs. It's practically rusted through!" 101

Gilbert pretended he hadn't heard her. He wished he could move the car a little closer to the grimy windows. It was almost impossible to make sense of in the deep shadows of the shed. He pushed hard on the handle, putting his weight into it. It gave a groan, a squeal, and another groan. Then it moved an inch. That was a magic inch! He got his oilcan and lavishly applied the forty-weight oil to every bearing he could find. Neils and Erwin held the lamp. Emmy leaned in closer. He pushed the handle again. Another groan, and a much higher squeal, and the handle sank under his weight. The handcar rumbled forward, almost crushing Emmy's foot—if she hadn't been so quick to leap back, she'd have been crippled. She didn't seem to mind. She, her brothers, and Gilbert were all staring at the handcar as if to say, "Where have you been all my life?"

THE HANDCAR RUMBLED FORWARD, ALMOST CRUSHING EMMY'S FOOT.

They christened it Kalamazoo and they worked with oil and muscle until they had moved it right up to the doorway. It cut their fingers to ribbons and turned their shins into fields of bruises, but it was all worth it because of what it promised: motion without end.

The track in the switchyard went in two directions. Inland, toward the nation and its hurrying progress and its infinite hunger for materials and blood and work. And out to sea, stretching out on a rockbed across the harbor, to the breakers where the great boats that were too large for the shallow harbor used to tie up to offload. Once they had bullied Kalamazoo onto the tracks—using blocks, winches, levers, and a total disregard for their own safety—they stood to either side of its bogey handle and stared from side to side. Each knew what the others were thinking: Do we pump for the land, or pump for the sea?

"Tomorrow," Gilbert said. It was the end of August now, and lessons would soon begin again, and each day felt like something was drawing to a close. "Tomorrow," Gilbert said. "We'll decide tomorrow. Bring supplies."

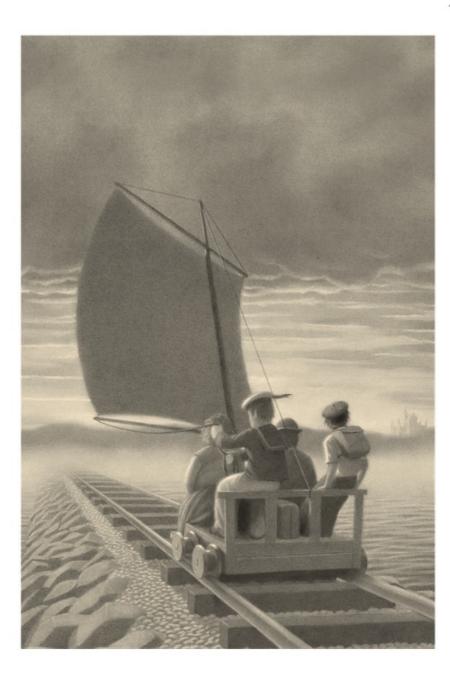
That night, by unspoken agreement, they all packed their treasures. Gilbert laid out his sailor suit—his father bought him a new one every year—and his book about time and space and stuffed a picnic blanket with Mrs. Curie's preserves, hardtack bread, jars of lemonade, and apples from the cellar. Mrs. Curie—three quarters deaf—slept through his raid. Gilbert then went to his father's study and took the spyglass that had belonged to his grandfather, who had also been lost at sea. He opened the small oak box holding Grandad's sextant, but as he'd never mastered it, he set it down. He took his father's enormous silver-chased[5] turnip watch, and tried on his rain boots and discovered that they fit. The last time he'd tried them on, he could have gotten both feet into one of them. Time had passed without his noticing, but his feet had noticed.

He hauled the bundles out to the hedgerow at the bottom of the driveway, and then he put himself to bed and in an instant he was asleep. An instant later, the sun was shining on his face. He woke, put on his sailor suit, went downstairs, and shouted hello to Mrs. Curie, who smiled a misty smile to see him in his sailor suit. She gave him hotcakes with butter and cherries from the tree behind Señor's shed, a glass of milk and a mountain of fried potatoes. He ate until his stomach wouldn't hold any more, said goodbye to her, and walked to the bottom of the hedgerow to retrieve his secret bundle. He wrestled it into his bike's basket and wobbled down to the Limburghers' gate to meet his friends, each with a bundle and a bike.

The half-hour ride to the switchyard took so little time that it was over even before Gilbert had a chance to think

300 about what he was doing. Time was going by too fast for thoughts now, like a train that had hit its speed and could now only be perceived as a blur of passing cars and a racket of wheels and steam.

Credits



Kalamazoo was still beaded with dew as they began to unload their bundles onto its platform. Gilbert set his down at the end farthest from the sea, and Emmy set hers down at the end farthest from the land, and when they stood to either side of the pump handle, it was clear that Emmy wanted to push for the land while Gilbert wanted to push them out to sea.

Naturally.

Emmy looked at Gilbert and Gilbert looked at Emmy. Gilbert took out his grandfather's spyglass, lifted off the leather cap from the business end, extended it, and pointed it out to sea, sweeping from side to side, looking farther than he'd ever seen. Wordlessly, he held it out to Emmy, who turned around to face the bay and swept it with the telescope. Then she handed it off to Neils and Erwin, who took their turns.

Nothing more had to be said. They leaned together into the stifflever that controlled *Kalamazoo's* direction of travel, threw it into position, and set to pumping out to sea.

What the spyglass showed: waves and waves, and waves and waves, and, farther along, the curvature of the planet itself as it warped toward Europe and Africa and the rest of the world. It showed a spit of land, graced with an ancient and crumbling sea fort, shrouded in mist and overgrown with the weeds and trees of long disuse. And beyond it, waves and more waves.

The gentle sea breeze turned into a stiff wind once they'd pumped for an hour, the handcart at first rolling slowly on the complaining wheels. Then, as the rust flaked off the axles and the bearings found their old accommodations, they spun against one another easily. The pumping was still hard work, and even though they traded off, the children soon grew tired and sore and Emmy called for a rest stop and a snack.

As they munched their sandwiches, Gilbert had a flash.

"We could use this for a sail," he said, nudging his picnic
blanket with one toe. Neils and Erwin—whose shorter arms
suffered more from the pumping labor—loved the idea, and
set to rigging a mast from their fishing poles and the long
crowbar they'd lashed to Kalamazoo's side. Emmy and Gilbert
let them do the work, watching with the wisdom of age, eating
sandwiches and enjoying the breeze that dried their sweat.

As they started up again, Kalamazoo seemed as refreshed from the rest as they were, and it rolled more easily than ever, the sail bellied out before the mast. When Gilbert and Emmy stopped to trade pumping duties back to the twins, Kalamazoo continued to roll, propelled by the stiff wind alone. All four children made themselves comfortable at the back of the pump car and allowed the time and the space to whip past them as they would.

"We're moving through space like time," Gilbert said.

Emmy quirked her mouth at him, a familiar no-nonsense look that he ignored.

"We are," he said. "We are moving in a straight line, from behind to in front, at a rate we can't control. Off to the sides are spaces we could move through, but we're not. We're on these rails, and we can't go sideways, can't go back, can't go up or down. We can't control our speed. We are space's slaves. This is just how we move through time."

Emmy shook her head. Neils seemed excited by the idea, though, and he nudged his twin and they muttered in their curious twinnish dialect to one another.

The sea fort was visible with the naked eye now, and with the spyglass, Gilbert could make out its brickwork and the streaks of guano that ran down its cracked walls. The rails ran right up to the fort—last used as a customs inspection point and past it to the hidden docks on the other side of the spit.

"Better hope that the wind shifts," Emmy said, holding a wetted finger up to check the breeze.

"Otherwise we're going to have a devil of a time pumping ourselves home in time for supper."

Gilbert drew out the turnip watch, which he'd set this morning by the big grandfather clock in the front hall, carefully winding its spring. He opened its face and checked the second hand. It seemed to be spinning a little more slowly, but that could have been his imagination. According to the watch, it was nearly eleven, and they'd been on the rails for three hours.

"I think we'll make the fort in time for lunch," he said.

At the mention of food, Neils and Erwin clamored for
snacks, and Emmy found them cookies she'd snitched from
the big jar in the Limburgher kitchen.

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Gilbert looked at the watch for a moment. The second hand had stopped moving. He held it up to his ear, and it wasn't precisely ticking any longer, but rather making a sound like a truck-wheel spinning in spring mud. He closed the lid again, and held it so tight that the intricate scrolling on the case dug into his palm.

Time passed.

And then it didn't.

And then it did again.

"Oh!" said Neils and Erwin together.

GILBERT LOOKED AT THE WATCH FOR A MOMENT. THE SECOND HAND HAD STOPPED MOVING.

To either side of the car, stretching into infinity, were more tracks, running across the endless harbor, each with its own car, its own sail, its own children. Some were edging ahead of them. Some were going backwards. A racket overhead had them all look up at once, at the tracks there, too, the rails and the cars and the Limburghers and the Gilberts in them. Some children were older. Some were younger. One Gilbert was weeping. One was a girl.

Gilbert waved his hand, and a hundred Gilberts waved back. One made a rude gesture.

"Oh!" said Emmy. To her right, another Emmy was offering her a sandwich. She took it and handed over the last of her cookies and Emmy smiled at herself and said thank you as politely as you could wonder.

"Sideways is sideways," Neils and Erwin said together. Emmy and Gilbert nodded. Gilbert pulled out his spyglass and looked ahead at the fort. All the rails converged on it, but without ever meeting. And some stretched beyond. And out there, somewhere, there was time like space and space like time. And somewhere there was a father on a ship that weathered a storm rather than succumbed to it.

Gilbert turned to his friends and shook each of their hands in turn. Neils was crying a little. Emmy gave Gilbert a friendly punch in the shoulder and then a hug.

There was another *Kalamazoo* to the right, and Gilbert was pretty sure he could easily make the leap from his car to it. And then to the next car, and the next. And beyond, into the infinite sideways.

If there was an answer, he'd find it there.

COLLABORATIVE DISCUSSION Why is Gilbert so interested in the dimension of time? Talk about your ideas with other group members. Discuss how time interacts with and changes Gilbert.